

AMENDED CLAIMS

1 (currently amended): A mobile pan and tilt camera and display-control apparatus comprising:

a fully rotatable camera attached to a mount assembly that is mounted to a vehicle for capturing mobile images;

a display-control box having an image display screen and control buttons for controlling said camera and its movement, said display-control box being attached to an adjustable mount in said vehicle within an operator's view and reach;

an image capture box for receiving said captured mobile images.

2 (currently amended): A mobile pan and tilt camera and display-control apparatus as claimed in claim 1 wherein said full rotation is achieved by mounting said camera to a tilting mechanism mounted on a panning mechanism.

3 (original): A mobile pan and tilt camera and display-control apparatus as claimed in claim 1 wherein said mount assembly incorporates a quick disconnect mechanism.

4 (original): A mobile pan and tilt camera and display-control apparatus as claimed in claim 3 further comprising a double locking mechanism on said mount assembly where one mechanism is a security fastener.

5 (original): A mobile pan and tilt camera and display-control apparatus as claimed in claim 2 further comprising a water seal attached to said tilting mechanism.

6 (original): A mobile pan and tilt camera and display-control apparatus as claimed in claim 2 wherein said mount assembly is adapted to engage the roof-rack of a vehicle.

7 (original): A mobile pan and tilt camera and display-control apparatus as claimed in claim 2 wherein said mount assembly is adapted to engage a THULE® brand roof rack system.

8 (original): A mobile pan and tilt camera and display-control apparatus as claimed in claim 1 further comprising a ball-plunger for self-locking said mount assembly.

9 (original): A mobile pan and tilt camera and display-control apparatus as claimed in claim 1 further comprising a security fastener as a secondary and operator activated mechanical locking mechanism for said mount assembly.

10 (original): A mobile pan and tilt camera and display-control apparatus as claimed in claim 2 further comprising a singular support for both said panning mechanism and said tilting mechanism and separate drive gears and slip clutches for both said panning mechanism and said tilting mechanism.

11 (currently amended): A mobile pan and tilt camera and display-control apparatus as claimed in claim 10 wherein said each slip clutch comprises:

a rotationally free gear;
a support housing for gear;
a friction pad co-aligned to said gear between said gear and said support housing;
a wave washer to apply a pressure against said rotationally free gear and said support housing of sufficient force to enable a motor to drive said gear and said support housing to a point where said support housing stops rotating and said rotationally free gear breaks friction of said friction pad while said motor continues to drive without overheating.

12 (original): A mobile pan and tilt camera and display-control apparatus as claimed in claim 1 further comprising a camera enclosure with bezel opening that is threaded to accept optical filters and is sealed with an o-ring for moisture blocking.

13 (original): A mobile pan and tilt camera and display-control apparatus as claimed in claim 1 further comprising a Field of View (FOV) stabilized camera which provides an electronic compensation to overcome mechanical gear backlash and vibration.

14 (original): A mobile pan and tilt camera and display-control apparatus as claimed in claim 1 wherein said camera may be mounted at any angle with respect to gravity.

15 (original): A mobile pan and tilt camera and display-control apparatus as claimed in claim 1 further comprising a bimetal heat sink for camera power supply temperature control.

16 (original): A mobile pan and tilt camera and display-control apparatus as claimed in claim 12 wherein said camera enclosure is adapted to act as an additional heat sink.

17 (original): A mobile pan and tilt camera and display-control apparatus as claimed in claim 1 wherein said a camera enclosure incorporates a one-way moisture passage plug with flexible and sealed passage for wires.

18 (currently amended): A mobile pan and tilt camera and display-control apparatus as claimed in claim 1 wherein said display and control system have display-control box has a set of control buttons positioned to be operated with a single hand.

19 (currently amended): A mobile pan and tilt camera and display-control apparatus as claimed in claim 1 wherein said display and control system have display-control box has a viewing angle adjustment lever positioned to be operated with said a single hand.

20 (original): A mobile pan and tilt camera and display-control apparatus as claimed in claim 1 further comprising an optically clear or tinted sphere enclosing said camera.

21 (original): A mobile pan and tilt camera and display-control apparatus as claimed in claim 2 wherein said mount assembly mates to a YAKIMA^R brand roof rack system.

22 (original): A mobile pan and tilt camera and display-control apparatus as claimed in claim 2 wherein said mount assembly includes an adapter plate to mate to a light bar used on emergency and patrol guard vehicles.

23 (original): A mobile pan and tilt camera and display-control apparatus as claimed in claim 2 wherein said mount assembly is adaptable to a rail road locomotive attachment.

24 (original): A mobile pan and tilt camera and display-control apparatus as claimed in claim 2 wherein said mount assembly includes an adapter plate for ship-board attachment.

25 (currently amended): A process for viewing a scene with mobile pan or tilt camera of claim 1 comprising the steps of:

mounting said camera to a vehicle for capturing mobile images;
displaying said captured mobile images on an image display screen;
controlling said camera position from within said vehicle;
capturing said captured mobile images in an image capture box for storage and transmission of said captured mobile images; and
transmitting said captured mobile images by radio frequency transmission to a data storage server for further processing; and
providing said captured mobile images on internet server for official or consumer access.